

## PATENT ABSTRACTS OF JAPAN

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(54) AIR ELECTRODE

(57)Abstract:

PURPOSE: To prevent any liquid leakage of a battery which is prepared by using an air electrode, and enable heavy-load discharge of the battery by preparing the air electrode by making an oxygen-gas permselective film to be in contact with an air electrode body, with a water repellent layer of a given thickness interposed between the electrode body and the oxygen-gas permselective film.

CONSTITUTION: A water repellent layer, which has a thickness of 0.1~1 $\mu$ m and is made of fluoroethylene propylene (copolymer) or the like having electrolyte resisting and water repellent property, is formed on a surface of an oxygen-gas permselective film such as polysiloxane by a sputtering or a vapor deposition method. The oxygen-gas permselective film is pressed upon and is made in contact with an electrode body made of a porous active metal such as a silver filter, with the water repellent layer interposed between the electrode body and the oxygen-gas permselective film. After that, they are made to adhere to each other by thermal fusion or the like, thus an air electrode is prepared. Thus prepared air electrode is used for a hydrogen/oxygen fuel cell, a metal/air battery or the like.

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